Notes on the Silver Gates Ranch Reports – Sage 2014, Tetra Tech 2008, & Granite 2007

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April 20, 2017

1. Most all of the sampling has been conducted either at the Southern most reaches of the property or on the Northwest portion near the former Wortley Loading Dock Area.
2. Sampling has largely focused on irrigation ditches F, G, H, & I with the assumption that irrigation water for the pastures carried mine waste sediment onto the property.
3. Figure2 and 3 are illegible with XRF data posted on them.
4. Mr. McKinstry makes the assumption that the OU-1 screening levels are appropriate for a residential development: Lead at 500 mg/kg and arsenic at 100 mg/kg. **Note:** Current USEPA RSL Tables: Arsenic is 0.77 mg/kg soil and lead is not listed however background concentrations are suggested as a residential value. **Values for OU-1 are NOT applicable to a residential development.**
5. Arsenic and lead should be compared to a non-existent site-specific background study. Residential values for arsenic should be based on site-specific background; not the OU-1 level or the RSL level.
6. Based on the sampling locations, only the Tetra Tech investigation sampled any of the area that would comprise the proposed residential lots for the development [see Figure 1A]. All of the Tetra Tech samples are surface soil samples with one sample [UE22-27] at a one-foot depth The Sage study and the Granite study only sampled areas that might be representative of Lots # 1, 18, 14 and possible lot #7. The Tetra Tech study reported maximum values of 13.9 mg/kg for arsenic and 241 mg/kg for lead with an average value of 8.05 and 77.07 respectively. The Sage study yielded soil average concentrations of "NA" mg/kg for arsenic and 638 mg/kg for lead. They did not include vales for arsenic because the levels were below their screening level of 100 mg/kg for arsenic
7. Data gaps:
    a. Are all COPCs represented [e.g., cadmium, zinc, etc?]- only in 2007 data from the limited Granite study
    b. Site specific background study for inorganics.
    c. Since it is a proposed housing development, need soils concentrations at depth since they will be digging foundations and/or basements.
8. USEPA RSL values for screening levels:

Arsenic	0.77 mg/kg	CA
Barium	16,000 mg/kg	NCA
Cadmium	78 mg/kg	NCA
Chromium	230 mg/kg based on Cr^{+6}	CA
Lead	Not listed	
Mercury	23 mg/kg (7.8 mg/kg for methyl mercury)	NCA
Selenium	390 mg/kg	NCA
Silver	390 mg/kg	NCA